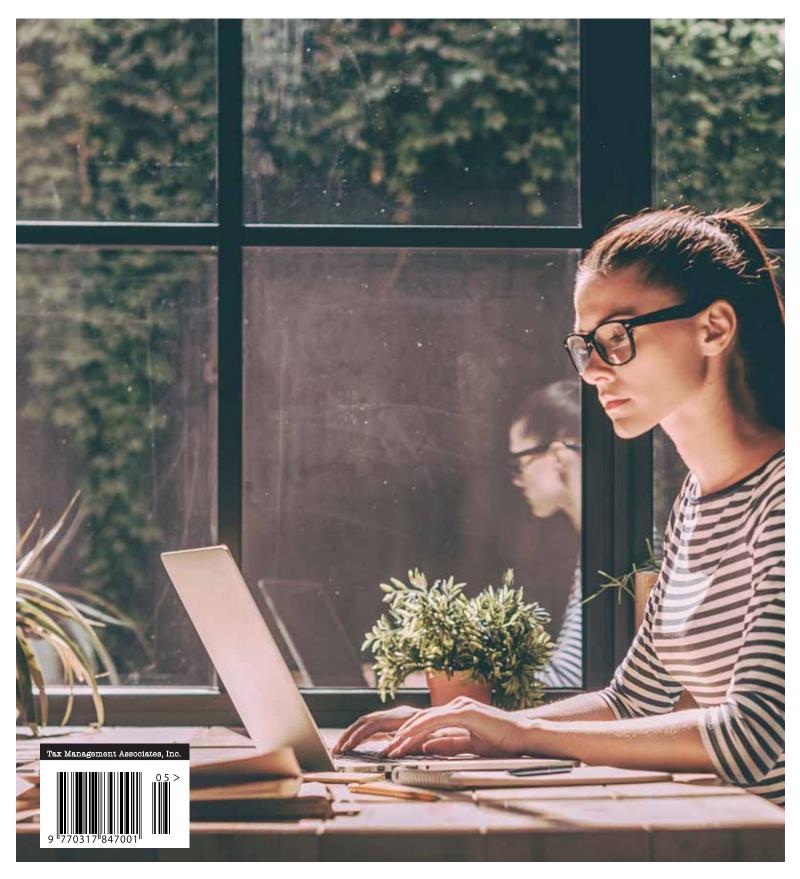
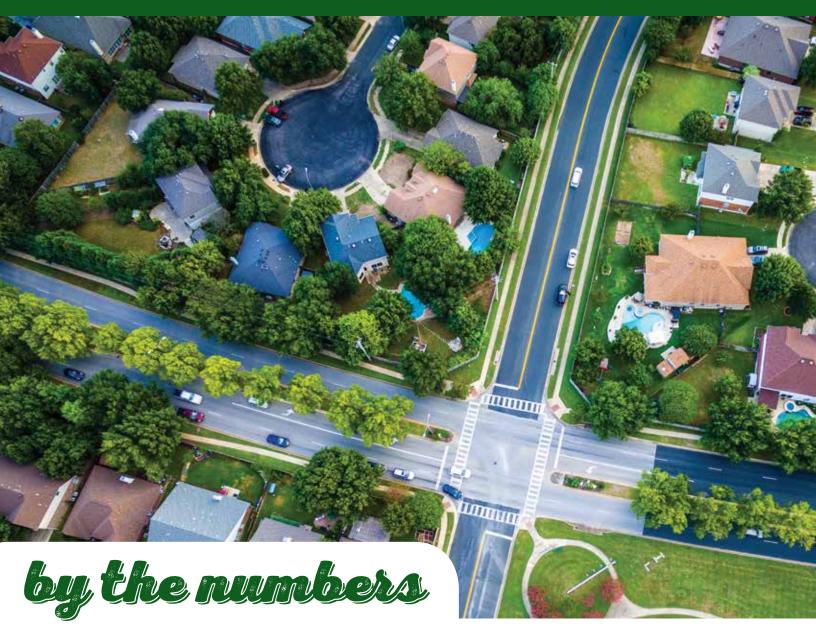
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Property taxes are at an all time high. Let's take a deeper look. | by Chip Cooke

As I will often do after getting through the morning e-mails, this morning I was off to check headlines on all of my preferred news outlets. Oftentimes I can find inspiration from some local or world event to help craft a central message in my newsletter article. This morning was no exception. After scanning down several columns I came across a blurb describing property tax revenues at an all-time high. Interesting! Right in our wheel house, so let's take a look.

The figures quoted from the article seemed to originate from the US census

bureau, and quoted 2016 property tax revenues at a whopping \$540 trillion for state and local governments across the United States. That equates to \$1,673 for every man, woman, and child currently living in the United States. This tops the previous high mark from 2009 at the precipice of the housing market, which makes sense as government values and revenues often lag the actual housing data.

The numbers actually send a couple of good signals. State government revenues only account for about 3% of that total number, so the vast majority

of the revenues are driven by real estate at the local level. This tells me that both housing and the commercial sectors are on the rebound from 2012 lows. I hope that says something about the overall vitality of the US economy and our collective purchasing power, and not that we are getting house poor again by bidding up homes and buying beyond our means. Until notified otherwise, I'm staying positive.

The article and associated figures also begged the question, "Where is it all going?" For every source of revenue at the local level, there is an



spent across our communities.

Now, for the role playing game. Let's say revenue growth is going to be flat this coming year, but we really need to make some cuts. Where do you do it? Education is usually a non-starter and as politically charged as anything on the list. How about healthcare? Nope. You have seen that issue fought to a standstill across the last eight years. You can see the dilemma faced by most elected officials at budget time. Every cut seems to have a consequence. So, if we want more, but can't cut, what are we supposed to do?

Here comes the obligatory sales pitch, because honestly, I have to. What if there were a company out there that didn't even consider the expenditure side of the equation, but only concentrated on the allowable level of revenues coming in? What if all that company did was try to help bring in the full complement of your jurisdiction's dollars in the most efficient and equitable manner possible? Hey, I get to make fun — that's what we do every day.

If you have been working with Tax Management Associates (TMA) for thirty years or three months, then get to know us again and all of the services we perform to help with your revenue needs. From cost reconciliations, to valuation issues, to rooting out waste, fraud, and abuse, TMA is here for you. Check out our revised website, attend a conference — shoot, give me a call — I would love to speak to you and quite frankly, don't get to do it enough.

A great client of mine stopped through the other day just to visit. He asked how many states we were in these days (keep in mind this is a current client) because the question had come up with one of his peers. My client told his colleague "I think nine". I sheepishly admitted to him that we are actually in twenty. Apparently I'm not getting the numbers out there myself, but I promise to do better.

Well, back to it I guess. First quarter has lived up to its notorious reputation coming in like a lion and out like a lamb. March was indeed pure madness, but thank you to my beloved Heels winning the national championship. All is good in the world.



in memory of John

It is with a heavy heart that I share with you the passing of a beloved and long-time TMA Regional Manager, John Shelton from our Indianapolis office. John passed away unexpectedly March 7th and was laid to rest in LaPorte, Indiana the following Monday with many members of the TMA family in attendance. John's passing has deeply affected us all and we will continue to grieve until all we remember is his larger than life personality and exceptional professionalism. Our hearts go out to his family during this difficult time.

associated use, so what exactly are we buying as consumers of the social contract? According to yet another source of data around state and local government expenditures, 28% of our hard earned dollars go towards education, both K-12 as well as higher learning. Healthcare makes up the next largest distribution at 22% with transportation and pensions each taking 8%. Protection, which I would have to assume encompasses fire, police, and the like came in at 7% and welfare programs at 6%. General government and miscellaneous expenditures rounded out the balance of the dollars





Al Consiglio, Director of Special Projects, answers all | by Jennifer Dixon

What has been the highlight of your time with Tax Management Associates? Being a part of the growth that TMA has experienced since I started in 2003.

What motivates you? At TMA, helping our clients be successful is very important to me. They are passing a lot of trust on to us, and I don't take that lightly.

What character trait do you bring to your job? Hard work is the most important one.

What is the most memorable advice a mentor has given you? Don't take things personal and don't give up.

If you could travel anywhere for work, then where would you want to go? I never complain about Florida trips.

Can you tell us about the best work assignment that you have ever had? I was fortunate enough to audit a facility that builds rockets for launching of satellites.

Any advice for auditors joining TMA? Do the little things extremely well.

Tell your coworkers something you appreciate about this company. I value the people I work with and the many friends I've made.

If you didn't work at TMA, then what would you do? My first choice is to be a cabana boy on a beach somewhere.

Name the most interesting places you have been. St. Maarten and Barbados in the Caribbean were fascinating. What is your favorite activity to do on vacation? I find a great amount of joy just laying on a beach.

What do you do to have fun? Riding my motorcycle, traveling, going to concerts, and watching baseball/football

What is the best part of your daily routine? I always enjoy having dinner with my kids.

What is your greatest achievement? Easily that would be raising kids (girls at that!) I have three brothers, so I find myself being challenged all the time with my girls.

What is something you learned in the last week? My oldest daughter is driving now and just got her own car. With that being said, I'm learning a new level of patience.

Describe an ideal weekend.

Dinner/drinks somewhere with an outside patio on Friday, baseball game or concert on Saturday, and ride my motorcycle all day Sunday.

Do you have any hidden talents? I'm surprisingly good at cooking.

If you could learn any skill, what would it be? I would love to be able to play the guitar.

If you were a teacher, what would you teach? *Math*.

What music did you listen to in high school? Van Halen (with Sammy Hagar). I was also introduced to Jimmy Buffett's music during that time.

Speaking of Jimmy Buffett, what would you order at Margaritaville? *Ice cold beer*.

Where were you born? Wyandotte, Michigan. It's my favorite city I've lived in.

Who is your favorite TV character? Don Johnson as Sonny Crockett in Miami Vice TV show.

If you could be in any movie, then what movie would you choose and what character would you like to play? I'd like to be Mickey Rourke's character, Harley in Harley Davidson and the Marlboro Man.

Who would be your first guest if you were a talk show host? My dad or my grandfather. My dad died in 2004 and I have a lot I'd like to talk to him about.

If you were a professional athlete what sport would you like to play? I would love to play baseball for the Detroit Tigers.

If you were a car, then what kind would you be? I'm not a car guy so please don't make me a car.

What is your favorite quote? Never stop doing your best just because someone doesn't give you credit.

What is one goal you would like to accomplish during your lifetime? My goals have changed quite a bit over time, but I'd like to see my children be successful and happy adults.

What do you think you will be doing 20 years from now? With any luck, I'll be enjoying retirement.



Isn't it time to KNIME again? | by Mark Cooke

As you have probably read in other articles, I love data. I'm not ashamed. It's a passion and I'm proud. From social science behavioral data to pure quantitative performance metrics; from big data to little data; messy dirty data to well-formed and beautifully curated data repositories. Come one, come all. I won't discriminate and I won't judge.

When it comes to working with data there is no tool I love more than KNIME (www.knime.org), either. It has a lot going for it, obviously. It's open source (think "it's free!"). The graphical user interface is easy to work with, and easy to explain to others what you have done. All of the workflows are re-usable. There is easy support for

other technologies I like to use, too, like the R language and multiple SQL and noSQL databases.

To be honest, I am so spoiled now that the thought of ever doing data analysis in a spreadsheet gives me the hebegeebees. Literally, the hair on the back of my neck stands up and I start to panic into a cold sweat. I feel an instant need to run. Those days were awful. When I think of all the time I wasted re-doing what I had already done a thousand times before...well, you just can't get that back. How things have changed!

KNIME 3.3.2 is the current release. It contains a bunch of goodies and the

look and feel has been improved over the last year. They have continued with the "read from" and "write to" anywhere mentality and expanded those capabilities. This can get pretty technical, but suffice it to say that KNIME handles small datasets and huge ones (like Hadoop clusters) beautifully. It also has nodes for RESTful data requests - and if you don't know what that means, it is simply a way to pull data down from remote servers, including those out on the internet.

Recent additions to KNIME around so called "big data" mean small machines can do big things. KNIME was always built with performance in mind, but the addition of some Spark nodes and



parallel processing enhancements mean data can get really big. I have personally chewed through hundreds of millions (100,000,000+) lines of data on a laptop without much trouble. This can be really helpful if you are doing some complex analysis and want to compare many features inside your data.

Mapping has always been a part of KNIME, too. However, these nodes have also been expanded and improved. There are nodes to read ESRI data files, and nodes to draw beautiful maps with custom colors and features to represent data qualities. Simply, you can use any data that contain latitude and longitude coordinates to create rich visuals. If you really want to geek out (oh, me too!),

you can use some popular libraries for mapping from tools like R to create super rich geospatial analyses.

The analytics portion of KNIME is, of course, the fun stuff. Data transformation (cleaning up all that legacy data, or splitting names or addresses for example) is robust - I haven't run into anything yet I couldn't do. But the analytics side is the fun stuff. There is a full suite of statistics tools. I mean full; regression, correlation, ANOVA...Chronbach Alpha anyone? But the fun stuff is inside the machine learning suite. This is where you can really start to build out models around similarity (is this property really like the others), distance (which entities

are similar and which are different), or trends. There are nodes to guide you through time series analysis (looking at changing patterns over time). You can even finish off building some predictive models - analyses that can help you classify unknown entities into certain groups.

Since I have your attention, because only my like-minded brethren would have made it this far into the article, did you know I teach KNIME courses? Yes! You don't have to go it alone. I typically teach classes with anywhere from five (5) to twenty (20) participants. A good introduction to the breadth and depth of KNIME, as well as some guided "what's possible" scenarios, takes about four days. We start with an introduction to the platform, and end with a BYOD ("bring your own data") section. By that point you will have a solid grounding and should be able to accomplish many tasks independently.

After that, your community can take up the mantle and continue to grow skills, share tips and tricks, or even workflows. The workflows can be exported and shipped to other interested users. That also means that if one person has built the wheel, no one else has to do it again. The broader KNIME community is a brilliant group of international users who contribute frequently to the KNIME community website, helping to answer questions, or provide advice. It's always a good idea to check in and see what they are up to from time to time.

So, isn't it time to KNIME? Or should I say, can't it be time to KNIME? I would love to hear from you if you want some advice on your data, or just want to chat about all things analytical, give me a call at (704) 847-1234.

